

SOME COMPANIES ARE FOUNDED ON HARD WORK. OTHERS ARE FOUNDED ON IDEALS. FS-CURTIS WAS FOUNDED ON BOTH.

## **RDS Series Refrigerated Air Dryer**

## Flows 90 to 12500scfm





# RDS TRUE ENERGY SAVING DESIGN

All FS-Curtis RDS Series dryers utilize three industry leading technologies to optimize energy savings and performance.

- 1. Demand Smart Energy Management System
- 2. Stainless Steel Brazed Plate Heat Exchanger
- 3. Integrated Two Stage Filtration

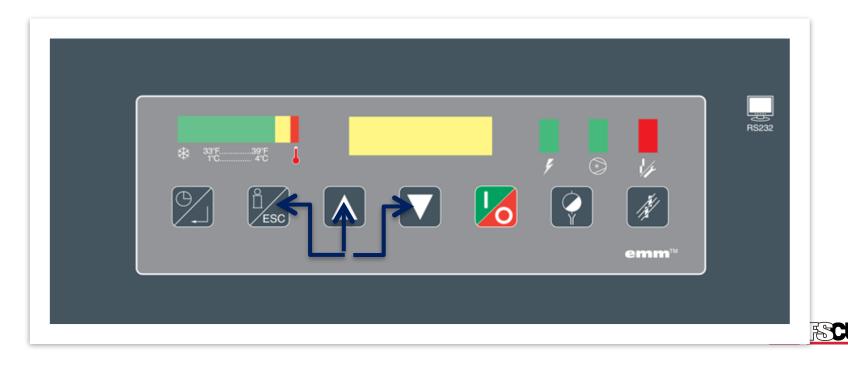




### DEMAND SMART ENERGY MANAGEMENT SYSTEM

#### **Demand Smart Energy Management System**

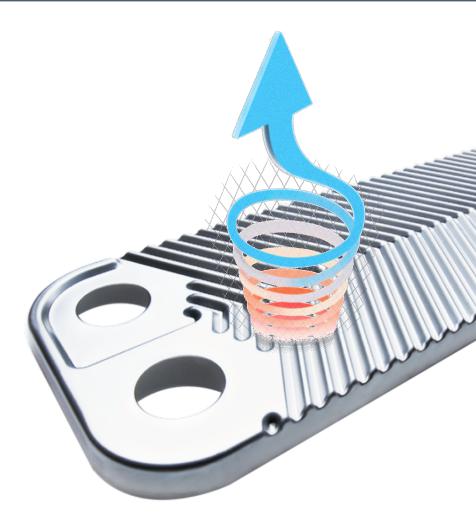
By monitoring the incoming heat load to determine how much cooling energy is required to maintain stable dew point control, this energy-saving control system is able to make precise refrigeration compressor adjustments to match the varying heat loads, maximizing energy savings.



## STAINLESS-STEEL BRAZED PLATE HEAT EXCHANGER

### Unparalleled performance and

- reliability brazed plate type heat exchangers provide high heat transfer efficiency, in a compact design
- AISI 316L stainless steel plates for long life and reliability
- Smooth non-fouling, channels promote minimal resistance to flow-this lowers pressure drop which saves energy
- Herringbone geometry stamped into the plates create a helix effect:
- 1. No pre-filters required saves initial and maintenance cost
- 2. Self cleaning, non-fouling design reduces maintenance





### INTEGRATED TWO STAGE FILTRATION



5.0 mg/m3 oil aerosol bulk liquids and 3.0-micron solid particulates are removed by the efficient, effective twostage filtration system. This means higher air quality and lower operating costs.

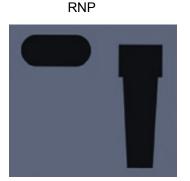
- First stage=two stainless-steel orifice tubes provides 10-micron mechanical separation.
- Second stage=an in-depth fiber media captures solid and liquid particles to 3 microns.
- Optional high-efficiency oil removal filter with a corrosion resistant inner and outer cores remove solid particles to 0.01 macron.



## BENEFITS OF INTEGRATED FILTRATION

#### **FS Curtis Method**

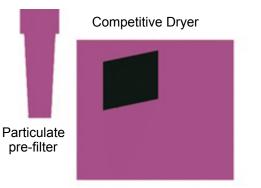
3-4 psid ISO Quality Class: 3- solids, 5- dew point, 5- oil



- Integral particulate and oil removal filter/separator also acts as pre-filter to downstream coalescing filters
- Heat exchangers do not require pre-filters!

#### **Pre-Filter Required Method**

4 psid + 3 psid = 7 psid ISO Quality Class 5 dew point (only rated quality class)



- Demister separator ineffective at removing small particles and oil aerosols
- Aluminum heat exchanger requires a particulate pre-filter

### Superior air quality — Lower operating cost — Saves floor space



### **RDS DIFFERENCES**



#### 90-675 SCFM

- Recip compressor w/ glycol reservoir
- R-134A refrigerant
- Demand Smart energy maximizer control optional
- No air loss drain

#### 800-3000 SCFM

- Digital Scroll compressor
- R-404A refrigerant
- Demand Smart energy maximizer control standard
- No air loss drain

#### 3750-12500 SCFM

- Digital Scroll compressor
- R-404A refrigerant
- Demand Smart energy maximizer control optional
- No air loss drain
- Multi station design





- Nema 4 electrics
- Water-cooled condenser
- Air block and bypass piping
- Integrated cold coalescing filter elements
- Low ambient protection (-10<sup>o</sup>F)
- Panel mounted gauge package
- Electronic filter monitor (1000-3000 scfm)



